

Appl. No. 09/965,672

Amdt. Dated January 16, 2004

Reply to Office action of September 16, 2003

**Amendments to the Claims:**

Please cancel claims 27-44 as being drawn to a non-elected invention, pursuant to the restriction requirement of December 23, 2002. This cancellation is without prejudice and is not to be construed as dedication of cancelled subject matter. Applicants reserve the right to prosecute the cancelled claims in one or more divisional or continuation application.

**Listing of Claims:**

1. (Original) A container defect detection apparatus, comprising:  
a fluid tank;  
a rotatable cup mounted within the fluid tank, which rotatable cup is configured to receive a first region of a container;  
a rotatable cap configured to receive a second region of the container;  
an engagement mechanism which moves the rotatable cup or rotatable cap towards or away from each other to engage the container;  
a drive train coupled to the rotatable cup or the rotatable cap, which drive train turns the rotatable cup or rotatable cap; and,  
an adjustable receiving/transmitting transducer positioned to mount proximal to the container.
2. (Original) The container defect apparatus of claim 1, wherein the cup comprises a centering ring.
3. (Original) The container defect apparatus of claim 1, wherein the cap comprises a rubber collar.
4. (Original) The container defect apparatus of claim 1, the drive train comprising:  
a motor mounted outside of the fluid tank, which motor is coupled to a gearbox, which gear box is coupled to an output shaft, which output shaft passes through a bearing housing mounted in a wall of the fluid tank and into contact with the cap.
5. (Original) The container defect apparatus of claim 1, wherein the rotatable cap is shaped to mount over a cylinder valve.
6. (Original) The container defect apparatus of claim 1, wherein the rotatable cup is coupled to a tailstock assembly which comprises the engagement mechanism.
7. (Original) The container defect apparatus of claim 1, wherein the rotatable cup is coupled to a tailstock assembly which comprises the engagement mechanism, which

engagement mechanism comprises a pneumatic cylinder which moves the rotatable cup into engagement with the container.

**8.** (Original) The container defect apparatus of claim **1**, wherein the engagement mechanism comprises a pneumatic cylinder.

**9.** (Original) The container defect apparatus of claim **1**, wherein: the rotatable cup is housed in a tailstock; the engagement mechanism comprises a slide upon which the tailstock moves towards or away from the drive train; and, the drive train is coupled to the rotatable cap.

**10.** (Original) The container defect apparatus of claim **1**, comprising a receiving transducer display coupled to the receiving transducer, which display displays an output of the receiving/transmitting transducer.

**11.** (Previously presented). The container defect apparatus of claim **10**, wherein the display is a computer screen and wherein the receiving transducer is coupled to a computer, which computer comprises instructions for detecting one or more signal from the receiving transducer.

**12.** (Previously presented). The container defect apparatus of claim **10**, wherein the display is a computer screen and wherein the receiving transducer is coupled to a computer, which computer comprises instructions for moving the receiving/transmitting transducer.

**13.** (Previously presented). The container defect apparatus of claim **10**, wherein the display is a computer screen and wherein the receiving transducer is coupled to a computer, which computer comprises instructions for directing one or more signal outputs from the receiving/transmitting transducer.

**14.** (Previously presented). The container defect apparatus of claim **1**, wherein the receiving/transmitting transducer is positioned above or below the centerline of the container when the container is mounted in the apparatus, to provide a 45 degree shear wave as the search tube holder and transducer is moved along a longitudinal axis of the container.

**15.** (Previously presented). The container defect apparatus of claim **1**, wherein the receiving/transmitting transducer is mounted on a search tube holder that holds the transducer

at an angle to provide a 45 degree shear wave as the search tube holder and transducer is moved along a longitudinal axis of the container, when the container is mounted in the apparatus.

**16.** (Previously presented). The container defect apparatus of claim **1**, wherein the receiving/transmitting transducer is positioned normal to the container, when the container is mounted in the apparatus to provide a longitudinal wave as the search tube holder and transducer is moved along a longitudinal axis of the container.

**17.** (Previously presented). The container defect apparatus of claim **1**, wherein the receiving/transmitting transducer is height or angle adjustable with respect to the container, when the container is mounted in the apparatus.

**18.** (Original) The container defect apparatus of claim **1**, wherein the receiving/transmitting transducer is mounted on a search tube.

**19.** (Original) The container defect apparatus of claim **18**, wherein the search tube is coupled to a rotatable search tube holder.

**20.** (Original) The container defect apparatus of claim **19**, wherein the rotatable search tube holder is coupled to an x-y-z translation mechanism which comprises an x-axis linear table, an x-axis motor which drives the search tube holder along the x-axis linear table, and x-axis encoder which tracks motion of the search tube holder along the x-axis linear table, a y-axis linear table, a y-axis motor which drives the search tube holder along the y-axis linear table, a y-axis encoder which tracks motion of the search tube holder along the y-axis linear table, a z-axis linear table, a z-axis motor which drives the search tube holder along the z-axis linear table, and a z-axis encoder which tracks motion of the search tube holder along the z-axis.

**21.** (Original) The container defect apparatus of claim **1**, wherein the receiving/transmitting transducer is a right angle transducer.

**22.** (Original) The container defect apparatus of claim **1**, wherein the fluid tank is partly filled with water.

**23.** (Original) The container defect apparatus of claim **1**, further comprising a container mounted between the rotatable cap and the rotatable cup.

**24.** (Original) The container defect apparatus of claim **23**, wherein the container is a cylinder comprising a cylinder valve in the second region, wherein the rotatable cap is a drive collar shaped to mount over the cylinder valve.

**25.** (Original) The container defect apparatus of claim **1**, wherein the apparatus is portable.

**26.** (Previously presented). The container defect apparatus of claim **1**, wherein the apparatus further comprises system software for aligning the transmitting transducer with respect to the container, when the container is mounted in the apparatus or for analyzing a signal from the transmitting/receiving transducer.

**27-44.** (Cancelled)

INTERVIEW SUMMARY:

Applicants' undersigned attorney interviewed Supervisory Patent Examiner Ron Williams on October 7, 2003. Agreement was reached in the interview as to how to process the case to allowance, and the present amendment reflects the agreement reached. Specifically, Supervisory Examiner Williams acknowledged that the disclosure in the detailed specification that compares the current application to the prior art is appropriately retained in the "Detailed Description" and should not be moved into the "Background of the Invention" or "Summary of The Invention" section of the application. Specifically, as noted in the interview, the MPEP and CFR are explicit that such comparative passages are appropriately included in the Detailed Description. That is, as discussed, comparison to the prior art is specified as appropriate for inclusion by 37 C.F.R. § 1.71 (b) and MPEP § 608.01(g) (indicating that the provisions of 37 C.F.R. § 1.71 apply to the Detailed Description). As discussed in the interview, inclusion of passages that compare the prior art to the current invention, as a way of describing the invention, are to be included in the Detailed Description, rather than the Background of the Invention section, which is to be limited to a discussion of the prior art itself (MPEP § 608.01(c)), or the Summary Section, which is to be a concise statement of the claimed invention (MPEP § 608.01(d)). Accordingly, as the passage at page 6, line 5 to page 7, line 22 is a passage that compares the invention to the prior art, and is not simply a discussion of the prior art, it was agreed that this passage should be maintained in the Detailed Description. As acknowledged by Supervisory Examiner Williams, the Action's contention that such comparative passages are to be discussed in the Background or Summary Section is not supported by MPEP § 608.01(c) or (d) and, indeed, is contradicted by MPEP § 608.01(g) and 37 C.F.R. § 1.71 (b).

With respect to the passage at page 8, line 1, to page 10, line 27, as noted in the interview, there is simply no requirement in statute or rule that a general discussion of the invention follow a specific discussion, nor, in the present case, does such rearrangement of the application assist the reader in any way in understanding the invention. Nevertheless, Applicants' attorney agreed to move this passage as directed by Examiner Chapman in the *Ex Parte Quayle* Action of September 16, 2003 to expedite issuance of the subject case. This rearrangement was agreed to solely to expedite prosecution, specifically to permit the application to proceed to issuance. No inference is to be made regarding the rearrangement of the specification, by the Office or any other party, and this rearrangement is made without prejudice to subsequent renewal of the specification in its original form.

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Finally, Supervisory Examiner Williams indicated that he should be consulted in the event that any question as to issuance remains. Applicants' undersigned attorney thanks Supervisory Examiner Williams for the helpful telephonic interview and for his advice in moving the case to issuance.